REMARKS

The Office Action dated September 28, 2005 has been received and carefully noted. The above amendments to the claims and the following remarks are submitted as a full and complete response thereto.

In accordance with the foregoing, claims 1-4, 8, 12, 14, 17, and 18-22 have been amended to improve clarity of the features recited therein and claims 23-26 have been added further defining the present invention. Claims 5-7, 9-11, 13, 15, and 16 have been cancelled without prejudice or disclaimer. Support for new claims 24-26 and for the amended recitations may be found, for instance, on FIG. 26 of the present application and page 9, line 5, to page 10, line 4, and page 28, line 13, to page 29, line 5 of the specification of the present application. No new matter is being presented, and approval and entry are respectfully requested. As will be discussed below, it is respectfully requested that all of claims 1-22 be found allowable as reciting patentable subject matter.

Claims 1-4, 8, 12, 14, and 17-26 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 101:

In the Office Action, at page 2, claims 1-3, 12-20, and 22 were rejected under 35 U.S.C. § 101 because the invention is directed to non-statutory subject matter.

In response, the claims have been amended to improve clarity and to place the claims within the scope of patentable subject matter under 35 U.S.C. §101. As such, in

view of the amendments to the claims, Applicant respectfully requests that the rejection under 35 U.S.C. §101 be reconsidered and withdrawn.

REJECTION UNDER 35 U.S.C. § 112:

In the Office Action, at page 4, claims 8-11 and 21 were rejected under 35 U.S.C. § 112, first paragraph, because of undue breadth.

Claims 8-11 and 21 have been amended to improve clarity of the features recited therein. Nonetheless, Applicant respectfully asserts that claims 8-11 and 21 were not properly rejected for undue breadth. Rather, the Specification alone may be rejected, at most, under 35 U.S.C. § 112, first paragraph. Specifically, according to 35 USC § 112, first paragraph, "the specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention." Thus, the referred portion of the statute is directed to the Specification, but it is not directed to the claim language. Applicant respectfully asserts that the rejection presented in the Office Action is improper because claims 8-11 and 21 are being rejected under 35 USC § 112, first paragraph, rather than the Specification, and therefore it should be withdrawn.

The Specification offers ample support of the features recited in claims 8-11 and 12. Applicant respectfully asserts that the Specification describes the claimed invention

in such a way as to enable one skilled in the art to make and/or use the invention. In view of the description and corresponding figures provided in the present application, a person of ordinary skill in the art would be able to make and use the present invention. For instance, page 9, line 5, to page 10, line 4, and page 28, line 13, to page 29, line 5 of the specification provide detailed descriptions of the claimed invention in such a way as to enable one skilled in the art to make and/or use the invention.

Thus, in view of the foregoing, it is respectfully requested that the rejection to claims 8-11 and 21 be withdrawn.

In the Office Action, at page 4, claims 17 and 22 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.

In response, claims 17 and 22 have been amended to improve clarity and antecedent support.

Accordingly, it is respectfully requested that the § 112, second paragraph rejections to these claims be withdrawn.

REJECTION UNDER 35 U.S.C. § 102:

In the Office Action, at page 5, claims 1 and 12 were rejected under 35 U.S.C. § 102 as being anticipated by The NMEA FAQ version 6.1 ("NMEA"). The Office Action took the position that NMEA describes all the recitations of independent claims 1 and 12.

It is respectfully asserted that, for at least the reasons provided herein below, NMEA fails to teach or suggest the recitations of the pending claims. Reconsideration is requested.

Independent claim 1, upon which claims 2-7, 20, and 24 are dependent, recites a geospatial media recorder including converting means for converting longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate alphanumeric representations or decimal equivalent geographic coordinate alphanumeric representations and altitude alphanumeric representations into individual discrete all-natural number geographic coordinate and measurement representations. The geospatial recorder further includes combining means for concatenating the individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface.

Independent claim 12, upon which claims 13-22 are dependent, recites a geospatial information processing method including converting longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate alphanumeric representations or decimal equivalent geographic coordinate alphanumeric representations and altitude alphanumeric representations into individual discrete all-natural number geographic coordinate and measurement representations; and concatenating the individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface.

Independent claim 25, recites a geospatial media recorder including a converter configured to convert longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate alphanumeric representations or decimal equivalent geographic coordinate alphanumeric representations and altitude alphanumeric representations into individual discrete all-natural number geographic coordinate and measurement representations. The geospatial recorder further includes a converting unit configured to concatenate the individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface.

Independent claim 26 is directed to a geospatial media recorder configured to record geospatial data at a location. A media capturing unit is configured to acquire geospatial referenced visual and audio information. A geospatial media encoder includes a geospatial receiver. The geospatial media encoder is configured to capture geospatial location information of the media recorder at a first location, geospatially reference a second location to the first location in accordance with the geospatial data associated with the geospatial receiver, calculate at the first location and during media acquisition geospatial location of the objects or entities at the second location using field measurements of the objects or entities at the second location based on the geospatial data of the media recorder, and convert latitude and longitude coordinates and additional spatial information comprising date, local time, and global time into the individual

discrete all-natural number geographic coordinate and measurement representations for encoding onto a data segment of a video frame at a time of media acquisition.

In conventional information processing systems, all-natural numbers (e.g., whole numbers) defining position are added or summed these individual discrete all-natural numbers measurement representations into a product through arithmetic addition or summing operations. However, these arithmetic operations would eliminate the unique location properties of a geospatial entity or object. Therefore, the present invention concatenates individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface, thereby retaining unique location properties of a geospatial entity or objects position.

As will be discussed below, NMEA fails to disclose or suggest the elements of any of the presently pending claims.

NMEA is a standard that generally defines an electrical interface and data protocol for communications between marine instrumentation. See page 1, section 1.1. NMEA defines a simple data format (i.e., NMEA-0180) of a single data byte transmitted at specific time intervals. See page 2, section 3.1. NMEA also defines a complex data format (i.e., NMEA-0182) consisting of a data block of 37 bytes of (mostly) readable ASCII text giving cross-track error, bearing to waypoint, present Lat/Long, and a binary

status byte. See page 3, section 3.2. All bytes in the complex in the complex format have bit 7=1 to distinguish them from the simple format.

However, NMEA is silent as to teaching or suggesting that the simple data format or the complex data format are converted from an alphanumeric representation of either longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate or decimal equivalent and altitude alphanumeric representations into "individual discrete all-natural number geographic coordinate and measurement representations," as recited in independent claims 1 and 12. NMEA does not provide any description pertaining to a conversion of ASCII text into individual **discrete all-natural number geographic coordinate** and measurement representations. Emphasis added.

In addition, NMEA provides a general sentence format in which data is transmitted in the form of "sentences," where each sentence starts with a "$," a two letter "talker ID," a three letter "sentence ID," followed by a number of data fields separated by commas and terminated by an optional checksum and a carriage return/line feed. It appears that the office action interprets the general sentence format as a concatenation. However, although NMEA provides such particular general sentence format, there is no teaching or suggestion in NMEA of concatenating the particular representations recited in independent claims 1 and 12. Specifically, the general sentence format of NMEA does not teach or suggest a concatenation of an "individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a

geospatial positional location at, below, or above earth's surface," as recited in independent claims 1 and 12.

The characters used in the general sentence format do not include the specific features recited in independent claims 1 and 12 including the concatenation of individual discrete all-natural number geographic coordinate and measurement representations. The general sentence format of NMEA does not provide a single discrete all-natural number geospatial coordinate measurement representation. NMEA's representation is only used in a computer data format application and, therefore, is limited in scope. The single discrete all-natural number geospatial coordinate measurement representation recited in independent claims 1 and 12 may be used to identify an entity and objects position in any application, both non-computer (mapping, cartography and surveying), computer-based, and digital format mediums such as telecommunications networks.

Furthermore, NMEA does not teach or suggest the particular recitations of independent claim 26. NMEA is silent as to teaching or suggesting, at least, "geospatially reference a second location to the first location in accordance with the geospatial data associated with the geospatial receiver, and calculate at the first location and during media acquisition geospatial location of the objects or entities at the second location using field measurements of the objects or entities at the second location based on the geospatial data of the media recorder," as recited in independent claim 26. There is no teaching or suggestion in NMEA providing the particular recitations of the geospatially reference and the calculation of the geospatial location as provided in

independent claim 26. Furthermore, there is no teaching or suggestion in NMEA of converting latitude and longitude coordinates and additional spatial information comprising date, local time, and global time into the individual discrete all-natural number geographic coordinate and measurement representations for encoding onto a video frame at a time of media acquisition as recited in independent claim 26.

Accordingly, it is respectfully asserted that NMEA fails to teach or suggest all the recitations of independent claims 1 and 12. Because independent claim 25 includes similar claim features as those recited in independent claim 1, although of different scope, the arguments presented above supporting the patentability of independent claim 1 are incorporated herein to support the patentability of independent claim 25. It is requested that the rejection to independent claims 1 and 12 be withdrawn and that independent claims 1, 12, 25, and 26 and related dependent claims be allowed.

In the Office Action, at page 5, claims 1 and 12 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,731,786 to Abraham et al. ("Abraham"). The Office Action took the position that Abraham describes all the recitations of independent claims 1 and 12.

It is respectfully asserted that, for at least the reasons provided herein below, Abraham fails to teach or suggest the recitations of the pending claims. Reconsideration is requested.

Abraham generally describes a method for storing and retrieving data that are equivalent to pseudorange data received by a mobile station from a constellation of GPS satellites. See column 3, lines 21-42. The method stores and retrieves: (1) a first index h1 specifying the spatial location and clock (bias) coordinates and the velocity coordinates (optional) of the station at each of a sequence of location fix times; (2) a second index h2 representing the constellation of GPS satellites whose signals are used for each of the location fixes; (3) a third index h3 representing the Issue Of Data, Clock (IODC) parameter for each of the location fixes; (4) a fourth index h4 representing the ephemeris, almanac and clock parameters for the satellite constellation for each of the location fixes; (5) a fifth index h5 representing the ionosphere/troposphere model parameters used to model the time delays for signal propagation through the ionosphere and troposphere, from satellite to ground observer, for each of the location fixes; and (6) a sixth index h6 representing the method and method parameters used to determine the location solution for each of the location fixes.

The fifth index h5 is an ordered concatenation or parameters, including the eight ionosphere model parameters, any troposphere model parameters used, the almanac reference time and reference week, the two almanac time parameters, the two parameters used in a UTC-GPS time relationship, frequency f used in a two-frequency model for time delay, a user-SV elevation angle, a user-SV azimuthal angle, a parameter used in an ionospheric model, a UTC reference time, the day number, the current week number, the

truncated week number, a UTC reference week number, and a user geodetic latitude and geodetic longitude.

Accordingly, Abraham is concerned with conventional methods including characterization of data measurements as described in the Background of the Invention of the present application. Abraham does not broach the concept of "converting longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate alphanumeric representations or decimal equivalent representations and altitude alphanumeric representations into individual discrete all-natural number geographic coordinate and measurement representations," as recited in independent claims 1 and 12. Abraham does not provide any description pertaining to the particular conversion recited in independent claims 1 and 12 and of the particular alphanumeric representations being converted into individual discrete all-natural number geographic coordinate and measurement representations. Instead, Abraham discloses concatenation of parameters ϕ_u – User Geodetic Latitude and λ_u - User Geodetic Longitude. These parameters are representations of latitude and longitude coordinates in the WGS 84 common geodetic reference frame. According to the WGS 84 Implementation Manual for the International Civil Aviation Organization (ICAO), the coordinate representation for ϕ and λ are a geodetic latitude and a geodetic longitude, respectively.

However, the mere provision of an index h5 including a concatenation of various parameters alone, does not teach or suggest that particular recitations of the present invention. At least, Abraham does not teach concatenating the individual discrete all-

natural number geographic coordinate and measurement representations, which were converted from alphanumeric representations, "into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface," as recited in independent claims 1 and 12.

Furthermore, Abraham does not teach or suggest a single discrete all-natural number representation of a geospatial positional location at, below, or above earth's surface of an entity or objects location in a three-dimensional Cartesian geographic coordinate plane system of the earth's surface by retaining all the inherent location properties.

Accordingly, it is respectfully asserted that Abraham fails to teach or suggest all the recitations of independent claims 1 and 12. Because independent claim 25 includes similar claim features as those recited in independent claim 1, although of different scope, the arguments presented above supporting the patentability of independent claim 1 are incorporated herein to support the patentability of independent claim 25.

There is no teaching or suggestion in Abraham providing the particular recitations of the geospatially reference and the calculation of the geospatial location as provided in independent claim 26. Furthermore, there is no teaching or suggestion in Abraham of converting latitude and longitude coordinates and additional spatial information comprising date, local time, and global time into the individual discrete all-natural

number geographic coordinate and measurement representations for encoding onto a video frame at a time of media acquisition as recited in independent claim 26.

It is requested that the rejection to independent claims 1 and 12 be withdrawn and that independent claims 1, 12, 25, and 26 and related dependent claims be allowed.

Additional comments supporting patentability of claims in view of NMEA and Abraham:

In view of the foregoing discussions regarding NMEA and Abraham, NMEA and Abraham do not teach or suggest all the recitations recited in independent claims 1, 12, 25, and 26. Neither reference provides the benefits, use, concreteness, and tangibility of the present invention. For instance, one of the many benefits of the method and recorder of the present invention is that it enables development of a single geospatial measurement representation of an entity or object, which is necessary to identify the exact location of the entity or object relative to the earth's surface, as opposed to a number of geographic coordinate representations. The reduction of multiple alphanumeric location attributes (geographic coordinates and altitude) to one attribute (a single geospatial coordinate) provides efficiency in representation and utility when used. The present invention allows for an identification of an entity or objects exact location in an all-natural number representation provides a three-dimensional measurable representation of the objects relationship to the rest of the world based on its finite geospatial physical dimension space it occupies in the world.

The tangibility of the single discrete all-natural number geospatial coordinate measurement representation present invention is that a single all-natural number numeric representation of an entity or object position can be physically located anywhere in the world based on its relative position of the entity or object and the earth's surface.

By satisfying these three characteristics including usefulness, concreteness, and tangibility, the single discrete all-natural number geospatial coordinate measurement representation constitutes a practical application of a geophysical concept in a real world setting.

Accordingly, it is respectfully asserted that NMEA and Abraham fail to teach or suggest all the recitations of independent claims 1, 12, 25, and 26. It is requested that the rejection to independent claims 1, 12, 25, and 26 be withdrawn and that independent claims 1, 12, 25, and 26 and related dependent claims be allowed.

REJECTION UNDER 35 U.S.C. § 103:

On page 6 of the Office Action, claims 2-4, 6-8, 10-11, and 14-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over NMEA in view of U.S. Patent No. 5,633,946 to Lachinski ("Lachinski"). The Office Action took the position that NMEA discloses all of the elements of the base claims associated with claims 2-4 and 14-19 with the exception of the particular recitations of claims 2-4 and 14-19. The Office Action then relies upon Lachinski as allegedly curing these deficiencies. Regarding independent claim 8, the office action took the position that NMEA and Lachinski, combined, describe

all the recitations of independent claim 8. The rejection is respectfully traversed for the reasons which follow. Because claims 6-7 and 10-11 have been cancelled without prejudice or disclaimer, the rejection to these claims is rendered moot.

Independent claim 8, upon which claims 9-11 and 21 are dependent, recites an acquisition module for acquiring geospatial data. The acquisition module includes encoding means for encoding geospatial data onto a data segment of a video frame at a time of geospatial data acquisition. The module includes capturing means having a geospatial receiver interconnected with a focus element at a first location, said capturing means being configured for capturing information of an entity at a second location, and geospatially referencing the second location to the first location in accordance with a focus ratio of the focus element and geospatial data associated with the geospatial receiver. The module includes converting means for converting latitude and longitude coordinates or decimal equivalent coordinates and additional spatial information into a concatenated single discrete all-natural numeric geospatial data format for encoding onto the data segment of the video frame at a time of media acquisition.

As will be discussed below, NMEA and Lachinski fail to disclose or suggest the elements of the presently pending claims.

Dependent claims 2-4 depend from independent claim 1 and dependent claims 14-19 depend from independent claim 12. Because the combination of NMEA and Lachinski must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claims 2-4 and 14-19, the arguments presented

above supporting the patentability of independent claims 1 and 12 over NMEA are incorporated herein.

Furthermore, independent claim 8 recites, in part, "converting means for converting latitude and longitude coordinates or decimal equivalent coordinates and additional spatial information into a concatenated single discrete all-natural numeric geospatial data format for encoding onto the data segment of the video frame at a time of media acquisition." Because independent claim 8 recites similar claim features as those recited in independent claims 1 and 12, although of different scope, and because the Office Action refers to similar portions of NMEA to reject independent claim 8, the arguments presented above supporting the patentability of independent claims 1 and 12 in view of NMEA are incorporated herein to support the patentability of independent claim 8.

Referring to Lachinski, this reference generally describes a method and apparatus for processing visual and spatial position information collected and processed for the formation of a geographic information database. See column 2, lines 10-38. A collection system in Lachinski includes video cameras, a GPS receiver, an inertial navigation system (INS) and a control computer. The collection system of Lachinski is mounted in a moving vehicle such as a van. A GPS receiver in Lachinski provides satellite-based spatial position information and precise time values to the control computer, while the INS provides kinematic-based spatial position information to the control computer. At the

same time, a video tape recorder controlled by the control computer records interleaved video images from the video cameras onto a single video tape.

In Lachinski, each frame of the video tape has a time code associated therewith. This time code is recorded by the control computer along with the current spatial position information provided by the GPS receiver and the INS at the time that frame is recorded. In this way, in Lachinski, each recorded video image can be correlated with the spatial position of the camera at the time the image was recorded.

However, Lachinski does not cure the deficiencies of NMEA. Similarly to NMEA, Lachinski does not teach or suggest a conversion of alphanumeric representations into "individual discrete all-natural number geographic coordinate and measurement representations," as recited in independent claims 1 and 12. Rather, Lachinski provides a conversion of a video tape 114 to a digital compressed format for easy random access during post-collection processing. See column 8, lines 54-65.

Also, similar to other conventional processing systems previously described including NMEA, according to Lachinski, once an absolute position for each GPS reading is determined, the recorded relative position data from the INS 28 can be converted into absolute spatial position data in terms of latitude, longitude and elevation. However, there is no teaching or suggestion in Lachinski of a conversion of "longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate alphanumeric representations into individual discrete all-natural number geographic coordinate and measurement representations," as recited in independent claims 1 and 12. Similarly,

there is no teaching or suggestion of, "converting latitude and longitude coordinates or decimal equivalent coordinates and additional spatial information into a concatenated single discrete all-natural numeric geospatial data format for encoding onto the data segment of the video frame at a time of media acquisition," as recited in independent claim 8.

A combination of NMEA and Lachinski would fail to teach the specific recitations pertaining to the conversion of the alphanumeric representations recited in independent claims 1, 8, and 12. Further, a combination of the descriptions provided in NMEA and Lachinski would not provide for the concatenation recited in independent claims 1, 8, and 12. Specifically, a combination of NMEA and Lachinski would provide a combination in a general sentence format using ASCII characters and absolute positions of a recorded pitch, roll and yaw of a vehicle to form a completed data file of accurate six-dimensional spatial positions which can be referenced by date, SMPTE time code, GMT and run. See page 3, sections 3.2 and 4.1 of NMEA and column 9, lines 60-67 of Lachinski. However, the combination of ASCII characters referenced by date, SMPTE time code, GMT and run of NMEA and Lachinski would not provide for a concatenation of "the individual discrete all-natural number geographic coordinate and measurement representations into **a single discrete all-natural number** geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface," as recited in independent claims 1 and 12, nor a concatenation of "a **single discrete all-**

natural numeric geospatial data format for encoding onto the data segment of the video frame at a time of media acquisition," as recited in independent claim 8. Emphasis added.

Furthermore, Lachinski generally describes that the GPS receiver provides satellite-based spatial position information and precise time values to the **control computer.** Emphasis added. See column 2, lines 21-31. Additionally, Lachinski states, "At the same time, a video tape recorder controlled by the control computer records interleaved video images from the video cameras onto a single video tape. Each frame of the video tape has a time code associated therewith. **This time code is recorded by the control computer along with the current spatial position information provided by the GPS receiver and the INS.**" Emphasis added. However, similarly to NMEA, Lachinski does not teach that "alphanumeric representations are converted into discrete all-natural number geographic coordinate and measurement representations," as recited in independent claims 1 and 12. Also, Similarly to NMEA, Lachinski is devoid of any teaching or suggestion providing "a concatenated single discrete all-natural numeric geospatial data format for encoding onto the data segment of the video frame at a time of media acquisition," as recited in independent claim 8.

Furthermore, the time code associated with each frame of video in Lachinski is the time code established by the Society of Motion Pictures & Television Engineers (SMPTE) in 1967. The SMPTE standard refers to both a longitudinal track format and a video vertical interval format. The longitudinal Time Code (LTC) is typically used in both video and audio applications, and may be recorded as a standard audio level signal.

The vertical interval Time Code (VITC) places the time code on video commonly referred to as the vertical blanking interval (VBI). The time code is the same for both formats.

The timing data in SMPTE as described in Lachinski takes the form of an eight-digit twenty-four hour clock. The count consists of 0 to 59 seconds, 0 to 59 minutes, and 0 to 23 hours. The second is subdivided into a number of frames, which may be varied to match the various frame-rates used around the world. For example, timecode address 11:41:59:29 is immediately followed by 11:42:00:00.

This time code address of Lachinski is the code recorded on the video tape and in the control computer. This time code is then **related in the control computer** to the current spatial position information provided by the GPS receiver to the control computer. Emphasis added. However, nowhere during this process is the spatial position from the GPS receiver encoded onto the video tape as claimed in dependent claims 2, 3, and 14.

Accordingly, it is respectfully asserted that NMEA and Lachinski fail to teach or suggest all the recitations of independent claims 1, 8, and 12. It is requested that the rejection to claims 2-4, 6-8, 10-11, and 14-19 be withdrawn.

On page 7 of the Office Action, claims 5 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over NMEA and Lachinski and in view of U.S. Patent No. 6,141,570 to O'Neill ("O'Neil"). The Office Action took the position that NMEA,

Lachinski, and O'Neill disclose all of the elements of claims 5 and 9. The rejection is respectfully traversed for the reasons which follow.

Because claims 5 and 9 have been cancelled without prejudice or disclaimer, the rejection to these claims is rendered moot.

On page 8 of the Office Action, claims 13, 18, and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over NMEA in view of U.S. Patent No. 6,141,570 to O'Neill ("O'Neil"). The Office Action took the position that NMEA and O'Neill disclose all of the elements of claims 13, 18, and 19. The rejection is respectfully traversed for the reasons which follow.

As will be discussed below, NMEA and O'Neill fail to disclose or suggest the elements of any of the presently pending claims.

Because claim 13 has been cancelled without prejudice or disclaimer, the rejection to these claims is rendered moot. Dependent claims 18 and 19 depend from independent claim 12, respectively. Dependent claim 18 recites, "producing integrated geospatial datasets," and dependent claim 19 recites, "distributing geospatial datasets." The combination of NMEA and O'Neill must teach, individually or combined all the recitations of the base claim and any intervening claims of dependent claims 18 and 19.

Independent claim 12 recites, "converting longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate alphanumeric representations or decimal equivalent geographic coordinate alphanumeric representations and altitude alphanumeric

representations into individual discrete all-natural number geographic coordinate and measurement representations; and concatenating the individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface." Because independent claim 12 includes similar claim features as those recited in independent claim 1, although of different scope, the arguments presented above supporting the patentability of independent claim 1 in view of NMEA and O'Neill are incorporated herein to support the patentability of independent claim 12.

Accordingly, dependent claims 18 and 19 depend directly upon claim 12 and, thereby, inherit all of the patentable distinctions thereof. Therefore, Applicant respectfully submits that dependent claims 18 and 19 are patentable over NMEA and O'Neill at least for the reasons presented in connection with independent claim 12.

It is respectfully requested that the rejections to dependent claims 18 and 19 be withdrawn.

On page 8 of the Office Action, claims 20 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over NMEA in view of U.S. Patent No. 6,496,870 to Faustini ("Faustini"). The Office Action took the position that NMEA discloses all of the elements of the base claims associated with claims 20 and 22 with the exception of the

particular recitations of claims 20 and 22. The Office Action then relies upon Faustini as allegedly curing these deficiencies. The rejection is respectfully traversed for the reasons which follow.

As will be discussed below, NMEA and Faustini fail to disclose or suggest the elements of any of the presently pending claims.

Dependent claim 20 depends from independent claim 1 and recites, "wherein the single discrete all-natural number geospatial coordinate measurement representation is stored in an encapsulated object class." Dependent claim 22 depends from independent claim 12 and recites, "storing the single discrete all-natural number geospatial coordinate measurement representation in an encapsulated object class."

Because dependent claim 20 depends directly upon claim 1, dependent claim 20 thereby inherits all of the patentable distinctions thereof. Also, because dependent claim 22 depends directly upon claim 12, dependent claim 22 thereby inherits all of the patentable distinctions thereof. Therefore, Applicant respectfully submits that claims 20 and 22 are patentable over NMEA at least for the reasons discussed above in connection with independent claims 1 and 12.

Faustini generally describes a method to augment eligible components or objects with appropriate collaboration code and registering such components or objects with a server application designated for that purpose which resides on the same HTTP server where an applet that spawned the components to be collaborated also resides. A server application first registers objects or components or portions thereof to be collaborated,

builds a record of such links and thereafter interacts with the collaborated components or designated portions thereof to publish, unpublish or update those components and objects, or portions thereof, in accordance with the application server record.

However, Faustini is devoid of any teaching or suggestion pertaining to a geospatial media recorder or to a geospatial information processing method. Instead, Faustini simply provides a system utilizing concepts including encapsulation, inheritance and polymorphism to represent a real or simulated object. See column 3, line 65, to column 4, line 4. Faustini does not cure the deficiencies of NMEA. Faustini is devoid of any teaching or suggestion pertaining to "converting longitude and latitude geographic degree, minutes, and seconds (DMS) coordinate alphanumeric representations or decimal equivalent geographic coordinate alphanumeric representations and altitude alphanumeric representations into individual discrete all-natural number geographic coordinate and measurement representations," and "concatenating the individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation," as recited in independent claims 1 and 12. In view of the deficiencies of NMEA and Faustini, it is difficult to understand how a person of ordinary skill in the art would arrive to the claimed recitations of base independent claims 1 and 12 from which claims 20 and 22 depend from.

In addition, without providing evidence in either cited reference, the office action conclusively asserts that "it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify the data format of NMEA by storing the data format in an encapsulated object classed as disclosed by Faustini, because using object-oriented programming with an encapsulated object class would facilitate the manipulation and control of the data while allowing some code reusability." Nowhere in NMEA is there a teaching or suggestion of a need to facilitate manipulation and control of the data while allowing some code reusability. "Rejection of patent application for obviousness under 35 U.S.C. §103 must be based on evidence comprehended by language of that section, and search for and analysis of prior art includes evidence relevant to finding of whether there is teaching, motivation, or suggestion to select and combine references relied on as evidence of obviousness; factual inquiry whether to combine references must be thorough and searching, based on objective evidence of record." See In re Lee, 61 USPQ2d 1430 (CA FC 2002).

However, nothing in either NMEA or Faustini suggests or supports the purported combination of the references set forth in the Office Action. It is submitted that the reason why no such showing was made is because the prior art of record individually or combined, fail to teach, suggest, or otherwise provide the motivation needed to make such a modification. "To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination. It is to be noted that simplicity and hindsight are not proper criteria for resolving the issue of obviousness." See Ex Parte Clapp, 227 USPQ 972, 973 (B.P.A.I. 1985).

Accordingly, in view of the foregoing, it is respectfully asserted that the prima facie obviousness rejection fails on its face and, accordingly, the combination of the references cited fails to teach or suggest the conversion of alphanumeric representations into individual discrete all-natural number geographic coordinate and measurement representations and the concatenation of "the individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface," as recited in independent claims 1 and 12.

It is respectfully requested that independent claims 1 and 12 and related dependent claims 20 and 22 be allowed.

On page 9 of the Office Action, claim 21 was rejected under 35 U.S.C. §103(a) as being unpatentable over NMEA and Lachinski in view of U.S. Patent No. 6,496,870 to Faustini ("Faustini"). The Office Action took the position that NMEA and Lachinski disclose all of the elements of the base claims associated with claim 21 with the exception of the particular recitations of claims 21. The Office Action then relies upon Faustini as allegedly curing these deficiencies. The rejection is respectfully traversed for the reasons which follow.

As will be discussed below, NMEA, Lachinski, and Faustini fail to disclose or suggest the elements of any of the presently pending claims.

Dependent claim 21 depends from independent claim 8 and recites, "wherein said converting means stores said single concatenated numeric geospatial data format in an encapsulated object class." Because dependent claim 21 depends directly upon claim 8, dependent claim 21 thereby inherits all of the patentable distinctions thereof. Therefore, Applicant respectfully submits that claim 21 is patentable over NMEA and Lachinski at least for the reasons discussed above in connection with independent claim 8.

Furthermore, as previously discussed, Faustini is silent as to teaching or suggesting, "a concatenated single discrete all-natural numeric geospatial data format for encoding onto the data segment of the video frame at a time of media acquisition," as recited in independent claim 8. Similarly to NMEA and Lachinski, Faustini is devoid of any teaching or suggestion pertaining to a conversion of "latitude and longitude coordinates or decimal equivalent coordinates and additional spatial information," as recited in independent claim 8 into the concatenated single discrete all-natural numeric geospatial data format. Because Faustini fails to cure the deficiencies of NMEA and Lachinski, as previously discussed, a combination of NMEA, Lachinski, and Faustini fails to teach or suggest all the recitations of independent claim 8.

In addition, as in the prior rejection and without providing evidence in either cited reference, the office action conclusively asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the data format of NMEA by storing the data format in an encapsulated object classed as disclosed by Faustini, because using object-oriented programming with an encapsulated object class

would facilitate the manipulation and control of the data while allowing some code reusability." Nowhere in NMEA or Lachinski is there a teaching or suggestion of a need to facilitate manipulation and control of the data while allowing some code reusability of Faustini.

Accordingly, in view of the foregoing, it is respectfully asserted that the prima facie obviousness rejection fails on its face and it is respectfully requested that independent claim 8 and related dependent claim 21 be allowed.

On page 10 of the Office Action, claims 2, 3, 6, 7, 10, 11, and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Abraham in view of U.S. Patent No. 4,855,827 to Best ("Best"). The Office Action took the position that Abraham discloses all of the elements of the base claims associated with claims 2, 3, 6, 7, 10, 11, and 14 with the exception of the particular recitations of claims 2, 3, 6, 7, 10, 11, and 14. The Office Action then relies upon Best as allegedly curing these deficiencies. The rejection is respectfully traversed for the reasons which follow. Because claims 6-7 and 10-11 have been cancelled without prejudice or disclaimer, the rejection to these claims is rendered moot.

As will be discussed below, Abraham and Best fail to disclose or suggest the elements of any of the presently pending claims.

Dependent claims 2 and 3 depend from independent claim 1 and dependent claim 14 depends from independent claim 12. Because the combination of Abraham and Best

must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claims 2, 3, and 14, the arguments presented above supporting the patentability of independent claims 1 and 12 over Abraham are incorporated herein.

Referring to Best, this reference generally describes method and apparatus for imbedding digital data and multiple audio (analog) track information in a video signal in a manner compatible with ordinary broadcast TV and transparent to a conventional television receiver. See column 2, lines 56-67. Best recognizes that in theory, a television picture is comprised of successive frames each of 525 lines, in practice, some of these lines are blanked for vertical retrace, and a portion of each remaining line is blanked for horizontal retrace and further, is not available for active video during the color burst signal. See column 5, lines 5-45. Accordingly, Best provides audio and digital signals to be imbedded in a video signal in an active portion of lines 22 through 29 so as to be storable on ordinary video equipment, compatible with studio and transmission processing equipment such as time base correctors and the like, capable of distribution through ordinary over-the-air broadcasting and cable television systems and readily detectable by special equipment, all without interfering with a display of the normal video signal and associated audio channels on a conventional television receiver.

However, Best does not cure the deficiencies of Abraham. Best is devoid of any description providing a conversion of alphanumeric representations to "individual discrete all-natural number geographic coordinate and measurement representations," as

recited in independent claims 1 and 12. Rather, Best appears to simply refer to analog to digital converters to convert analog to digital signals and digital converters to provide digitized audio signals.

Similarly to Abraham, Best is silent as to teaching or suggesting a concatenation as performed and recited in independent claims 1 and 12. Specifically, Best processes data to embed digital data and audio track information in a video signal. Best does not describe, "concatenating the individual discrete all-natural number geographic coordinate and measurement representations into a single discrete all-natural number geospatial coordinate measurement representation for identification of a geospatial positional location at, below, or above earth's surface," as recited in independent claims 1 and 12.

A combination of Abraham and Best would provide a method for storing and retrieving (1) a first index h1 specifying the spatial location and clock (bias) coordinates and the velocity coordinates (optional) of the station at each of a sequence of location fix times; (2) a second index h2 representing the constellation of GPS satellites whose signals are used for each of the location fixes; (3) a third index h3 representing the Issue Of Data, Clock (IODC) parameter for each of the location fixes; (4) a fourth index h4 representing the ephemeris, almanac and clock parameters for the satellite constellation for each of the location fixes; (5) a fifth index h5 representing the ionosphere/troposphere model parameters used to model the time delays for signal propagation through the ionosphere and troposphere, from satellite to ground observer, for each of the location fixes; and (6) a sixth index h6 representing the method and method parameters used to

determine the location solution for each of the location fixes. (As provided in Abraham) The indexes would be embedded as digital data and multiple audio track information in a video signal in a manner compatible with ordinary broadcast TV (as provided in Best).

The combination of the cited references would fail to teach or suggest all the recitations of independent claims 1 and 12. The combination of Abraham and Best would not teach a person of ordinary skill in the art to convert alphanumeric representations into discrete all-natural number geographic coordinate and measurement representations, to concatenate the representations into a single discrete all-natural number geospatial coordinate measurement representation, or converting latitude and longitude coordinates or decimal equivalent coordinates and additional spatial information into a concatenated single discrete all-natural numeric geospatial data format as in the present application.

Accordingly, dependent claims 2-3 depend from independent claim 1 and thereby inherit all of the patentable distinctions thereof. Dependent claim 14 depends from independent claim 12 and thereby inherits all of the patentable distinctions thereof. Therefore, Applicant respectfully submits that dependent claims 2, 3, and 14 are patentable over Abraham and Best at least for the reasons presented in connection with independent claims 1 and 12.

It is respectfully requested that the rejections to dependent claims 2, 3, and 14 be withdrawn.

CONCLUSION:

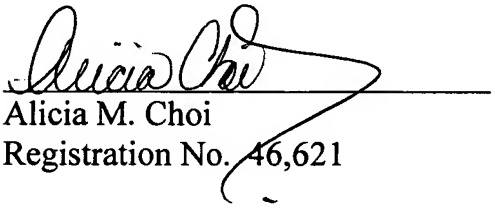
In view of the above, Applicant respectfully submits that the claimed invention recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicant further submits that the subject matter is more than sufficient to render the claimed invention unobvious to a person of skill in the art. Applicant therefore respectfully requests that each of claims 1-4, 8, 12, 14, and 17-26 be found allowable and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Additional Claim Fee Transmittal
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